

Attorney Docket No. 233-583-USP

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims

1 – 50 (canceled)

51 (currently amended): A method for switching a packet comprising:

Introducing a packet ~~the packet~~ into a first port of a first line card of a first base rack;
transmitting the packet from the first line card through a first backplane to a first switch card of the first base rack;
transmitting the packet ~~across a connector which joins from a first cascade port on~~ the first switch card to ~~a second cascade port on a second switch card of a~~ second base rack coupled to the first switch card; ~~wherein the connector includes an optical fiber and wherein transmitting the packet from the first cascade port to the second cascade port includes converting the packet to an optical signal;~~
transmitting the packet from the second switch card through a second backplane to a second line card on the second base rack; and
transmitting the packet out of a second port of the second base rack.

52 (original): The method of claim 51 wherein transmitting the packet from the first switch card to the second switch card includes a reading a second port number and determining the second port number is associated with the second base rack.

53 - 55 (canceled)

56 (currently amended): The method of ~~claim 55~~ claim 51 wherein transmitting the packet from ~~the first cascade port on the first switch card to the second cascade port on the~~ second switch card further includes buffering the packet on the second switch card.

57 (original): The method of claim 51 wherein introducing the packet into the first port of the first line card includes converting the packet from an optical signal to an electrical signal.

Attorney Docket No. 233-583-USP

58 (original): The method of claim 57 wherein introducing the packet into the first port of the first line card further includes performing a physical layer conversion.

59 (original): The method of claim 58 wherein introducing the packet into the first port of the first line card further includes performing fast-path packet processing.

60 (original): The method of claim 58 wherein introducing the packet into the first port of the first line card further includes performing slow-path packet processing.

61 (original): The method of claim 51 wherein transmitting the packet through the first backplane includes segmenting the packet into at least one cell.

62 (original): The method of claim 61 wherein segmenting the packet creates a payload of 64 bytes.

63 (original): The method of claim 61 wherein segmenting the packet creates a payload of 128 bytes.

64 – 66 (canceled)

67 (original): The method of claim 51 wherein transmitting the packet through the second backplane includes placing the packet in a priority output queue on the second switch card.

68 (original): The method of claim 67 wherein transmitting the packet through the second backplane further includes scheduling to use the second port.

69 and 70 (canceled)

71 (original): The method of claim 51 wherein transmitting the packet out of a second port of the second base rack includes processing the packet by the second line card.

72 (original): The method of claim 71 wherein processing the packet includes reassembling at least one cell into the packet.

73 (original): The method of claim 71 wherein processing the packet further includes performing a physical layer conversion.

74 (original): The method of claim 71 wherein processing the packet further includes converting the packet from an electrical signal to an optical signal.

Attorney Docket No. 233-583-USP

75 (original): The method of claim 51 wherein transmitting the packet from the first line card includes buffering the packet in a set of queues associated with a packet processor on the line card.

76 (original): The method of claim 51 wherein transmitting the packet to the first switch card includes buffering the packet in a set of queues associated with a flow control ASIC on the switch card.

77 (original): The method of claim 51 wherein transmitting the packet from the first switch card to the second switch card includes routing the packet through a crossbar on the first switch card and buffering the packet in a first queue dedicated to a cascade port on the first base rack.

78 (canceled)

79 (original): The method of claim 51 wherein transmitting the packet from the second switch card through the second backplane includes routing the packet through a crossbar on the second switch card and buffering the packet in a queue between the crossbar and the second backplane.

80 (original): The method of claim 51 wherein transmitting the packet through the second backplane to a second line card includes buffering the packet in a queue on the second line card dedicated to a destination port.

81 (new): A method for switching a packet comprising:

Introducing the packet into a first port of a first line card of a first base rack;

transmitting the packet from the first line card through a first backplane to a first switch card of the first base rack by segmenting the packet into at least one cell; wherein segmenting the packet includes:

staging packet data at an SRAM;

waiting for packet header processing to be completed;

placing a request for first backplane arbitration into a priority queue;

winning first backplane arbitration; and

reading packet data from the SRAM;

Attorney Docket No. 233-583-USP

transmitting the packet from the first switch card to a second switch card of a second base rack coupled to the first switch card;

transmitting the packet from the second switch card through a second backplane to a second line card on the second base rack; and

transmitting the packet out of a second port of the second base rack.

82 (new): The method of claim 81 wherein segmenting the packet additionally includes reading a cell-size from an SRAM and high-speed serial transmission of the at least one cell across the first backplane to the first switch card.

83 (new): The method of claim 81 wherein segmenting the packet additionally includes placing the at least one cell in a buffer on a first Flow Control ASIC (FLC) on the first switch card.

84 (new): A method for switching a packet comprising:

introducing the packet into a first port of a first line card of a first base rack;

transmitting the packet from the first line card through a first backplane to a first switch card of the first base rack;

transmitting the packet from the first switch card to a second switch card of a second base rack coupled to the first switch card;

transmitting the packet from the second switch card through a second backplane to a second line card on the second base rack by:

placing the packet in a priority output queue on the second switch card;

scheduling to use the second port;

sending the packet from a first FLC to a crossbar;

routing the packet through the crossbar; and

buffering the packet at an egress buffer on a second FLC;

transmitting the packet out of a second port of the second base rack.

Attorney Docket No. 233-583-USP

85 (new): The method of claim 84 wherein transmitting the packet through the second backplane further includes determining a credit at a receiving queue on the second line card and high-speed serial transmission of the packet across the second backplane.

86 (new): A method for switching a packet comprising:

Introducing the packet into a first port of a first line card of a first base rack;

transmitting the packet from the first line card through a first backplane to a first switch card of the first base rack;

transmitting the packet from the first switch card to a second switch card of a second base rack coupled to the first switch card by:

routing the packet through a crossbar on the first switch card;

buffering the packet in a first queue dedicated to a cascade port on the first base rack; and

buffering the packet in a second queue associated with a flow control ASIC on the second switch card;

transmitting the packet from the second switch card through a second backplane to a second line card on the second base rack; and

transmitting the packet out of a second port of the second base rack.